Session 616

WebObjects Tools

Stan Jirman—Manager, WebObjects Tools
Tom Naughton—WebObjects Engineer

What You'll Learn

- New features in WebObjects 5 tools
- WebObjects tool integration

Key Areas of Presentation

- Project Builder assistants
- Project structure
- Rapid turnaround
- CVS integration
- Installation
- Custom palettes

Project Builder Assistants

- Project assistants
- File assistants

Project Assistants

- Help with new project creation
- Build compilable skeleton projects
- Add basic resources based on project type and EOModel analysis

New in WebObjects 5

- You can add multiple EOModels (for inter-model relationships)
- You can add frameworks (which can contain business logic and EOModels)
- Cocoa EOF Application Desktop Java application using EOF and Cocoa

File Assistants

- Used to add files of specific types to a project
  - Java classes
  - Web components
  - Java Client nibs

Demo

Project Assistants

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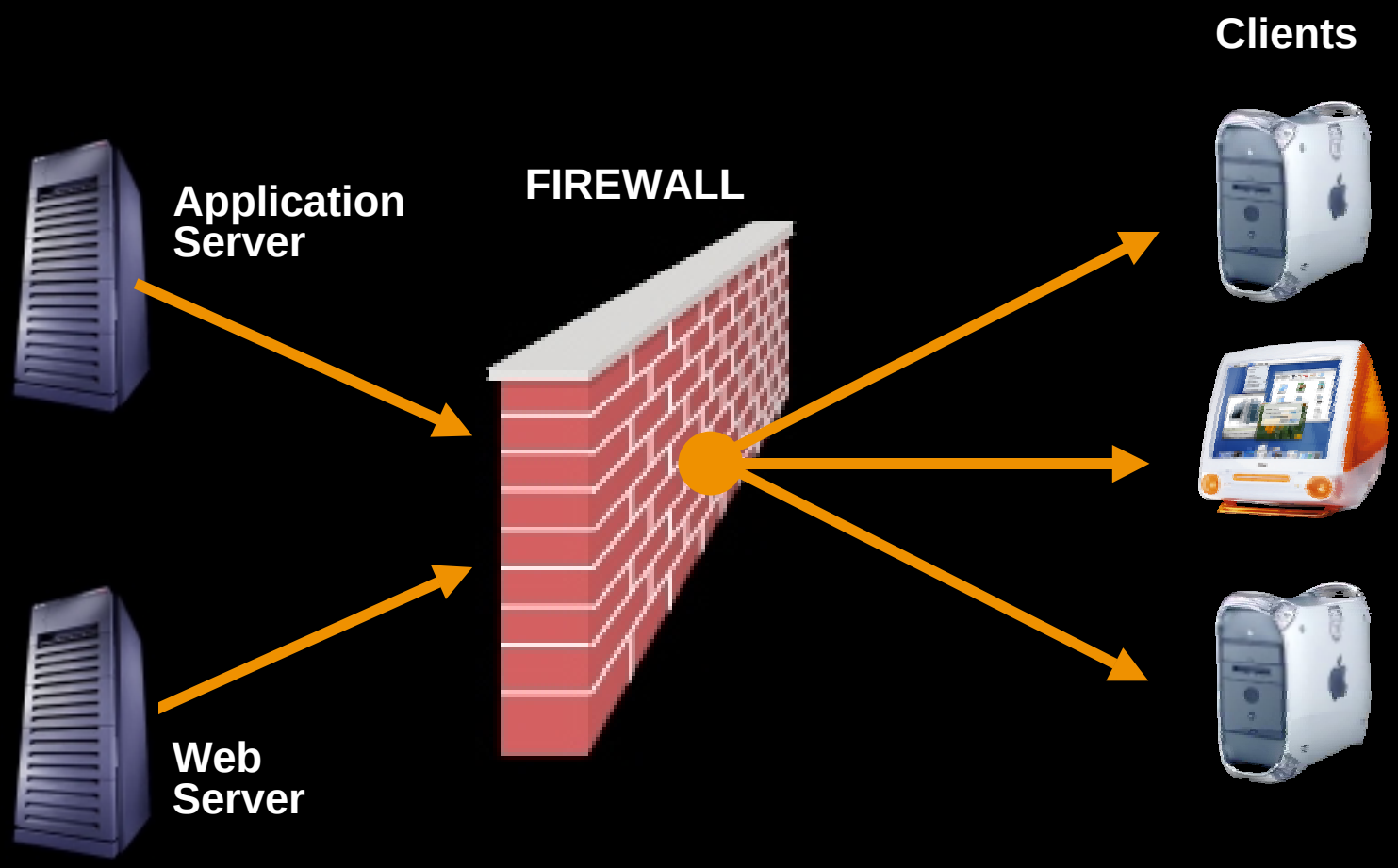
Project Structure in Project Builder

- Targets
- “Buckets”
- “Mystery Files”

What Is a Target?

- One file can be part of multiple targets, such as a Java source file of a Java Client project
- Defines which files are part of a particular component of a built product

Deployment Scenarios



Web Server Target

- Static images
- Static HTML
- Client-side Java classes
- Java Client nib files
- Anything that gets accessed through a “normal” URL

Application Server Target

- Dynamic content
- Server-side Java classes
- Web components
- EOModels
- Images generated on the fly

Target Warning

- Do not mess with your targets
- Do not rename them
- Do not modify them

Buckets? What Buckets?

- No more “buckets” in Project Builder
- Files can be placed in any file group in the browser
- Files can live anywhere on the file system
- Assistants / WOB will automatically add files to file groups with specific names

Mystery Files

woo:

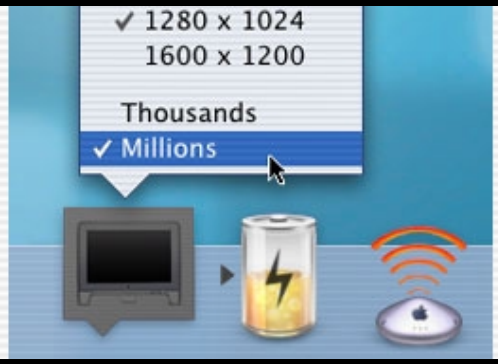
- Display group definitions
- Component encoding

api:

- XML format
- During development only
- Tells WOB how to validate the component bindings

Demo

Targets



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Rapid Turnaround Mode

- Improves development speed by reducing the number of times you have to build the project
- No need to perform a full split install
- Allows tweaking of HTML components
- Allows changing resources, such as images
- No need to use a web server

Rapid Turnaround Mode

- Project Builder needs to be running
- WOF and WOB communicate with PB to get the resources

Demo

Rapid Turnaround

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CVS Integration in Project Builder

- What is CVS?
- What can it do for you on Mac OS X and WebObjects?

What Is CVS?

- Concurrent Versioning System
- Open source
- Comes with Mac OS X
- Cross platform
- Command-line only
- Apple loves it and uses it internally

How Does Project Builder Help You With CVS?

- Shows you when you add / delete / rename / modify a file
- Supports deletion of individual files or file wrappers (e.g., *.wo files)
- Allows remote CVS servers
- Supports security

Demo

CVS Support

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Installing WebObjects Applications

- Build Styles
- Split installs
- Contents of built projects

Build Styles

- Define different build settings for different builds
- Used by WebObjects for different install locations
- Three build styles for WebObjects 5
  - Development
  - Deployment
  - WebServer

Build Styles

Things to Install	Development	Deployment	WebServer
App Server Resources (Components, EOModels, etc.)	Development Build Dir	App Server Install Dir	App Server Install Dir
App Server Java Classes	Development Build Dir	App Server Install Dir	App Server Install Dir
Web Server Resources (Images, JavaScript, etc.)	Development Build Dir	App Server Install Dir	Web Server Document Root
Web Server Java Classes (for JavaClient)	Development Build Dir	App Server Install Dir	App Server Install Dir

Installation Builds

- Must be invoked from the command line, not from within Project Builder

```
pbxbuild install \
        -buildstyle <buildstyle> \
        DSTROOT=/
```

- Split-installs require both Deployment and WebServer styles invoked

Contents of a Built Project

- Mac OS X / UNIX launch scripts

  appname.woa/appname
  appname.woa/Contents/MacOS/appname

- Same script for both Mac OS X and UNIX

Contents of a Built Project

- Windows launch scripts

  appname.woa/appname.CMD
  appname.woa/Contents/Windows/appname.CMD

- The two copies of the script are identical

Class Path Files

- One classpath file for each platform

  appname.woa/Contents/MacOS/MacOSClassPath.txt
  appname.woa/Contents/UNIX/UNIXClassPath.txt
  appname.woa/Contents/Windows/CLSSPATH.TXT

- These files contain
  - Class path information used to launch the application
  - Which Java VM to use to launch the application
  - The class to use as the application class
  - Parameters passed to the application on startup

Optional Java Client Launch Script

- Optionally, a launch script for the client of a Java Client application can be generated, with a client class path

appname.woa/Contents/MacOS/appname
appname.woa/Contents/MacOS/ClasspathClient.txt

General Application Wrapper Contents

- Directory containing the application server resources, including the Java classes in the Java subdirectory

  appname.woa/Contents/Resources

- Directory containing the web server resources, including the Java Client Java classes in the Java subdirectory

  appname.woa/Contents/WebServerResources

Application Wrapper

Had enough?

Application Wrapper

Now have some
fun again…

Custom WOB Palettes

- New customizable palette in WebObjects 5
- Can be used to store components
- Allows re-use of a component across a project or a work group

Demo

WebObjects Builder Custom Palette

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Summary

- Project Builder is the core of WebObjects 5 development
- Project Builder is in constant communication with the rest of the WebObjects tools to offer a smooth development process
- Different Build Targets for different project files
- Different Build Styles for different stages of development process

WebObjects Lab

- Located downstairs in Room K
- Lab hours
  - Monday 12:00pm–6:00pm
  - Tuesday 10:30am–6:00pm
  - Wednesday 10:30am–6:00pm
  - Thursday 10:30am–6:00pm
  - Friday 10:30am–3:30pm

☑ Vote for WebObjects as Best App Server
http://developer.apple.com/webobjects

Roadmap

617 WebObjects Security	Room A1 **Fri., 10:30am**
618 Optimizing WebObjects Applications	Room A1 **Fri., 2:00pm**
FF111 Feedback Forum: WebObjects	Room A1 **Fri., 3:30pm**

Who to Contact

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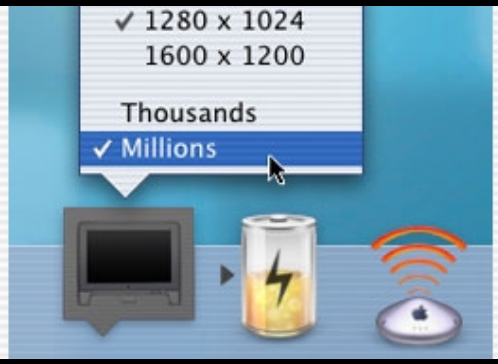
Q&A



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